REMARKS/ARGUMENTS

Reconsideration of this Application and entry of this Amendment is respectfully requested. Claims 1-3, 6-10, 12-16 and 18-25 are pending. Claims 8, 9, 21 and 24 have been canceled herein. Claims 1, 10, 12, 20, 22, 23 and 25 have been amended. No new matter has been introduced by virtue of these amendments.

Claim 8 has been objected to because of an inadvertent typographical error. Claim 8 has been canceled herein, thereby rendering this objection moot.

35 U.S.C. §103Rejections

Claims 1-3, 6-8, 12-16, 18-20 and 23 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kamath et al. (Kamath) in view of Siepmann et al. (Siepmann). Applicant respectfully traverses.

To maintain a proper rejection under 35 USC § 103, the Examiner must meet four conditions to establish a prima facie case of obviousness. First, the Examiner must show that the prior art suggested to those of ordinary skill in the art that they should make the claimed composition or device or carry out the claimed process. Second, the Examiner must show that the prior art would have provided one of ordinary skill in the art with a reasonable expectation of success. Both the suggestion and the reasonable expectation of success must be adequately founded in the prior art and not in an applicant's disclosure. Third, the prior art must teach or suggest all the claim limitations. *In re Vaeck*, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). Fourth, if an obviousness rejection is based on some combination of prior art references, the Examiner must show a suggestion, teaching, or motivation to combine the prior art references ("the TSM test"). In re Dembiczak, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Following *KSR Int'l Co. v. Teleflex, Inc.*, this fourth prong of the *prima facie* obviousness analysis must not be applied in a rigid or formulaic way such that it becomes inconsistent with the more flexible approach of *Graham v. John Deere*, 383 U.S. 1, 17-18 (1966); 127 S. Ct. 1727 (2007). It must still be applied, however, as the TSM test captures the important insight that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *Id.* at 1741 (citing *United States v. Adams*, 383 U.S. 39,

50-52 (1966)). The cited references, even when combined, do not teach or suggest all of the limitations of the pending claims as currently amended. In particular, the cited references do not teach or suggest:

a medical implant for the controllable delivery of at least one pharmaceutical compound to a localized area within a patient, said implant comprising:

an implantable medical device having a surface and a coating formed on at least a portion of said surface, said coating having at least two polymer layers, two of said at least two polymer layers incorporating at least one releasable pharmaceutical compound, each of said two polymer layers incorporating at least one releasable pharmaceutical compound having at least one physical property affecting the releasability of said releasable pharmaceutical compound that differs from said other layer, wherein said at least one physical property affecting the releasability of said at least one pharmaceutical compound is molecular weight and wherein said at least one releasable pharmaceutical compound is a macrolide antibiotic, as in currently amended claim 1, or

a method for making a controllable drug releasing gradient coating for the surface of a medical device, said method comprising the steps of:

forming a first polymer layer on said surface of said medical device, said first polymer layer containing at least one releasably bound pharmaceutical compound and having at least one physical property affecting the releasability of said at least one pharmaceutical compound; and

forming at least one additional polymer layer on said first polymer layer, said at least one additional layer containing at least one releasably bound pharmaceutical compound, said additional polymer layer differing in said at least one physical property affecting the releasability of said at least one pharmaceutical compound from said first polymer layer, wherein said at least one physical property affecting the releasability of said at least one pharmaceutical compound is molecular weight and wherein the at least one releasably bound pharmaceutical compound is a macrolide antibiotic, as in currently amended claim 12.

Kamath discloses medical implants with coatings of polymer and bioactive agent. The coatings may comprise multiple layers, each containing a bioactive agent. Kamath describes drug release by dissolution/erosion of the polymer. However, a close reading of Kamath reveals

that Kamath is describing polymers comprised of both hydrophilic and hydrophobic components and hydrophilic bioactive agents. For example, on page 24, lines 9-15, Kamath states "The incorporation and release of the hydrophilic bioactive agent is thus facilitated due to its higher affinity for the hydrophilic polymer. In such a situation, the drug release occurs by dissolution/erosion of the hydrophilic polymeric component followed by diffusion through the hydrophobic counterpart." (emphasis added). Furthermore, Siepmann describes the effect of molecular weight on the release profile of hydrophilic drugs from hydrophilic matrix tablets comprising only one particular polymer, hydroxypropyl methylcellulose.

In the instant amendment, Applicant has incorporated the limitation of claim 9 into claim 1 and the limitation of claims 21/24 into claim 12, namely, that the releasably bound pharmaceutical compound is a macrolide antibiotic. It is well known that macrolide antibiotics are highly hydrophobic compounds. Therefore, the fact that hydrophilic drugs can be released from hydrophilic polymer matrices, or that the molecular weight of a hydrophilic polymer such as hydroxypropyl methylcelluluse affects the release profile of a hydrophilic drug, has no bearing on the use of two polymer layers, each containing a releasable hydrophobic macrolide antibiotic, and each layer differing from the other by having different molecular weight properties that affect the release of the hydrophobic macrolide antibiotic from such layers, as required by currently amended independent claims 1 and 12.

Accordingly, neither Kamath nor Siepmann, individually or together, teach or suggest Applicant's invention as presently claimed and Applicant maintains that independent claims 1 and 12 are patentable over Kamath in view of Siepmann. The Examiner is respectfully requested to withdraw the Section 103 rejection of these claims.

Claims 2, 3, 6, 7, 13-16, 18-20 and 23 depend from and add further features to independent claims 1 or 12 and are patentable over Kamath in view of Siepmann for at least the reasons presented above. The Examiner is respectfully requested to withdraw the Section 103 rejection of these claims.

Claims 9, 10, 21 and 22 have been rejected under 35 U.S.C. 103(a) as being

unpatentable over Kamath in view of Siepmann and further in view of Schwarz et al. (Schwarz). Applicant respectfully traverses. In view of the discussion presented by the Examiner in the Office Action and for purposes of this response, Applicant assumes that the Examiner also intended this rejection to apply to claim 25.

The claims that are the subject of this ground of rejection depend from independent claims 1 or 12 and add further features thereto. As presented above, independent claims 1 and 12 are patentable over Kamath in view of Siepmann. Schwarz does not cure the deficiencies of these references. Schwarz merely shows that a certain macrolide antibiotic, rapamycin, can be used on a stent to prevent restenosis. The fact that rapamycin and the (hydrophilic) agents described by Kamath treat or prevent restenosis does not make them equivalent for purposes of their release from different molecular weight polymer matrices, as discussed above. Accordingly, claims 9, 10, 21, 22 and 25 are patentable over Kamath in view of Siepmann and further in view of Schwarz. The Examiner is respectfully requested to withdraw the Section 103 rejection of these claims.

Conclusion

For the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. The Commissioner is hereby authorized to charge any additional fees which may be required under 37 C.F.R. 1.17, or credit any overpayment, to Deposit Account No. 01-2525. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at telephone (707) 543-5021.

Respectfully submitted,

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